



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
25063 CENTER RIDGE ROAD
WESTLAKE, OH 44145-4114

DATE: June 21, 2017

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Real Alloy Specialty Products, Elyria, Ohio

FROM: Mark Conti, Lead Environmental Engineer *MCC*
Cleveland Section (ME-W)

THRU: Brooke Furio, Chief *BF*
Cleveland Section (ME-W)

TO: Natalie Topinka, Acting Section Chief
Air Enforcement & Compliance Assurance Section, IL/IN (AE-17J)

BASIC INFORMATION

Facility Name: Real Alloy Specialty Products

Facility Location: 320 Huron Street, Elyria, Ohio 44035

Date of Inspection: June 20, 2017

Lead Inspector: Mark Conti, Lead Environmental Engineer

Other Attendees:

1. Josh Thompson, Plant Manager, Real Alloy Specialty Products

Purpose of Inspection: The purpose was to determine compliance with rules and regulations promulgated under the Clean Air Act. The Cleveland Section was requested to conduct visible emission readings during plant operation. It was also requested that the inspector see whether all of the units that require being vented to a baghouse are operating as such.

Facility Type: aluminum shredding and screening

Arrival Time: 8:45 a.m.

Departure Time: 9:25 a.m.

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

- ☒ Credentials Presented
- ☒ CBI warning to facility provided

The following information was obtained verbally from Mr. Thompson unless otherwise noted.

Process Description: The facility receives aluminum chips and used beverage containers that it shreds and screens. It also receives aluminum chips and dried lime that it presses into briquettes. Some processed chips and as-received chips are blended to achieve the percentage of aluminum specified by a customer. Its products are used in the steel industry as a steel deoxidizer.

Staff Interview: Mr. Thompson stated that the facility was in the midst of inventorying unprocessed aluminum chips. The inventorying would continue until the middle of next week. Shredders and screens will not be operated until inventorying is completed.

The FMC screener (emission unit P903) has been removed to have it rebuilt. It will be out for repair for at least another 1-2 months. It may not be used in the future, because it is not a necessary part of the process. It has been used when the Magnatech shredder (emission unit P902) oversize screen is damaged, and the shredder is offline for repair. Mr. Thompson has learned that he can process more tonnage by quickly turning around repair of the Magnatech shredder, instead of using the FMC screener during repairs to the Magnatech shredder.

TOUR INFORMATION

EPA toured the facility: Yes

Data Collected and Observations:

- Mr. Thompson started the plant tour at the Komarek Model DH400 briquetting and compacting roll press (emission unit P908). The briquetting press was in operation. Shredded aluminum and dried lime are loaded into the feed hopper with a small front loader. The aluminum fed to the briquetting press consists of chips stored in piles along the south side of the processing building. Chips are unloaded by suppliers, and they do not receive further processing before being loaded into the briquetting press. Emissions at the feed hopper are captured by a hood vented to a dedicated baghouse outside the south wall of the building. Briquettes from the press travel down a shaker table to remove loose chips and fines. Briquettes then travel up an enclosed conveyor that empties into a tumbler to knock off sharp edges. Another conveyor transfers the finished briquettes into poly mesh bags. There was some dust from the shaker table and conveyors. There is a large overhead door near the briquetting press where the front loader brings in chips from the storage piles. There were no fugitive emissions outside

the building near the overhead door. There were no visible emissions from the baghouse stack.

- The plant tour continued at the Taper-Slot® vibratory scalping screen (emission unit F002). The facility's permit to install and operate (permit number P0117668) identifies the equipment as a Rotex screener. Chunks of aluminum too large to shred are screened out by the scalping screen. This source is uncontrolled.
- Scalped material goes to the SSI Shredding Systems pre-shredder (emission unit P909) to de-tangle material from the Taper-Slot® vibratory scalping screen. Emissions at the cutters are captured by a hood vented to a shared baghouse outside the west wall of the building.
- Material from the SSI pre-shredder goes to the AP 5400 pre-shredder (emission unit P901), which reduces material size to less than one inch. Emissions at the cutters are captured by a hood vented to the same baghouse that controls emissions captured by the SSI pre-shredder.
- Material from the AP 5400 pre-shredder goes to the Magnatech hammermill shredder (emission unit P902). The hammermill shredder screens out larger pieces, which are subsequently reprocessed. A conveyor belt transfers material from the shredder to steel boxes. The hammer section of the unit is completely enclosed. Captured emissions are vented to a shared baghouse outside the west wall of the building.
- Some material processed through the Magnatech shredder is further screened with a Rotex 852 screener (emission unit P907) to achieve a specific size range. Shredded material is loaded into a hopper. The Rotex 852 has a ¼ inch screen and a 20 mesh screen (0.0328 inches) to segregate material larger than ¼ inch, smaller than 20 mesh, and in the range of 20 mesh through ¼ inch. Emissions at the feed hopper are captured by a hood vented to the same baghouse as the Magnatech shredder. The hood is about 15 feet above ground. Emissions from the screens are captured by a hood that is also vented to the same baghouse as the Magnatech shredder. The hood is about four feet above the screens. Emissions from the fines conveyor discharge point are captured by a hood that is also vented to the same baghouse as the Magnatech shredder. The hood is about three feet above the discharge end of the conveyor belt.
- Mr. Thompson then took me through the rest of the building and pointed out where material is stored in several three-sided bins. Product is stored according to its percentage of aluminum. Some product is blended to achieve the percentage of aluminum specified by a customer.

Field Measurements: were not taken during this inspection.

SIGNATURES

Lead Inspector: Mark Conti Date: 6-21-2017
Mark Conti

Supervisor: Brooke Furio Date: 6-22-17
Brooke Furio